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New Evidence Supporting the Blancan Age of the Sand and Gravel Sequence Capping the Ash Hollow Formation, Garden, Keith, and Lincoln Counties, Nebraska

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NEW EVIDENCE SUPPORTING THE BLANCAN AGE OF THE SAND AND GRAVEL SEQUENCE CAPPING THE ASH HOLLOW FORMATION, GARDEN, KEITH AND LINCOLN COUNTIES, NEBRASKA

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Sandwiched between the overlying eolian Quaternary loesses and sands and the underlying beds of the Ash Hollow Formation, Ogallala Group, buried beneath the sliver of Cheyenne Tableland in Keith County and adjacent areas of western Nebraska, is a mass of fluvially deposited sand, gravelly sand, and sandy gravel of previously uncertain age. Some authors assigned these sediments to the Ogallala Group, while others have called them either the Broadwater Formation (Blancan), or a combination of the two rock units.

No volcanic ash beds or other radiometrically datable materials have been found in these deposits, but a few fossils have been reported. A fossil tooth of Stegomastodon mirificus from the gravels at Paxton, Nebraska, was noted by Stout (1971). Diffendal, Pabian, and Thomasson (1982) located fragments of a mastodon tooth in the same beds south of Ash Hollow Park in Garden

County. In November 1984, a lower third molar of Equus simplicidens was found in place in the sand and gravel just west of Sutherland, Nebraska. This species is from the Blancan Land-Mammal Age and supports the view that the sand and gravel deposit is roughly equivalent in age to the Broadwater Formation found along the north side of the North Platte Valley.

The occurrences of these fossils combined with studies of variations in thicknesses and grain compositions suggest that these deposits were laid down by an ancestor of the South Platte River between 4 and 2 million years ago.